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ABSTRACT

The primary tasks of the Office of Educational Research and Improvement (OERI) sponsored research projects taken from Department of Education (DOE) Requests for Proposals from March 1990 are listed, and extracts from winning proposals are presented. As reflected in the list of topics of the 17 Centers that OERI announced it would fund, educational research was broadly conceived. Each extract describes the primary tasks the research will address, its organizing framework, and the proposed research activities. Centers are usually housed at universities and are often the collaborative effort of university consortia. A table summarizes the projects and performing institutions in alphabetical order by the following areas of research called for in the Request for Proposals: (1) assessment; (2) families, communities, and children's learning; (3) education in the inner cities; (4) cultural diversity and second-language learning; (5) writing and literacy; (6) student learning; (7) learning to teach; (8) postsecondary learning, teaching, and assessment; (9) teacher performance evaluation and educational accountability; (10) education policies and student learning; (11) adult literacy; (12) educational quality of the workforce; (13) organization and restructuring of schools; (14) mathematics teaching and learning; (15) science teaching and learning; (16) education finance and productivity; and (17) literature teaching and learning. In most cases, the title of the Center is included, but some will be incorporated into existing Centers. (Author/SLD)

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Educational Research Directions 1990-1995:
Extracts from Descriptions of Primary Tasks of 17 OERI Centers from March 1990 USDOE Request for Proposals, and 17 Winning Proposals

Cynthia Wallat

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Abstract

The primary tasks of Office of Educational Research and Improvement (OERI) - sponsored research projects taken from Department of Education (DOE) Requests for Proposals from March 1990 are listed, and extracts from winning proposals are presented. Each extract describes the primary tasks the research will address, its organizing framework, and proposed research activities. Centers are generally housed at universities and often are the collaborative effort of university consortia. A table summarizes the projects and performing institutions in alphabetical order by the following areas of research called for in the Request for Proposals: (1) assessment; (2) families, communities, and children's learning; (3) education in the inner cities; (4) cultural diversity and second-language learning; (5) writing and literacy; (6) student learning; (7) learning to teach; (8) postsecondary learning, teaching, and assessment; (9) teacher performance evaluation and educational accountability; (10) education policies and student learning; (11) adult literacy; (12) educational quality of the workforce; (13) organization and restructuring of schools; (14) mathematics teaching and learning; (15) science teaching and learning; (16) education finance and productivity; and (17) literature teaching and learning

EDUCATIONAL RESEARCH DIRECTIONS 1990 - 1995

INTRODUCTION

In March, 1990 the Office of Educational Research and Improvement, or OERI, distributed a Request for Proposals (RFP) for descriptions of five years of work that would highlight the content and process of human activity that was related to education. The RFP called for research that would take into account all that must be taken into account to develop further understanding that education does not take place in a sealed container, set off from the rest of the social world.

As reflected in the Table 1 list of topics of the 17 Centers that OERI announced would be funded for the five year period 1990 - 1995, educational research was broadly conceived. This paper concerns the study of the concept --- "social context of education" – as reflected in these 17 OERI Centers. As recognized in the RFP, such a phrase connotes multiple meanings. The proposal writers were not tied to any one meaning. Rather the intent of the RFP was to fund multiple discipline teams to conceive and carry out research on 17 topics. The names and locations of the 17 Centers presented in Table 1 provides a indication of the wide net that OERI has captured to advance knowledge of the "social context of education."

{INSERT Table 1 about here}

THE CONCEPT OF "SOCIAL CONTEXT"

It is a matter of public record that social scientists continue to agree that the study of human society, including the institutions that develop in response to economic, political, and legal environments, has yielded contributions. " Foremost among these are the achievement of generalized theoretical knowledge concerning fundamental conditions for the occurrence of various types of events and processes" (Nadel, 1961, p. vii). For example, over three decades ago, in his book called, The Structure of Science, Ernest Nadel presented a model of forms of inquiry in the social sciences that he believed would continue to help explicate ways of knowing "social contexts." Social science forms of inquiry would contribute ways of knowing a phenomena such as "social context" because the construct focused researchers attention on description, function, and contingencies.

The contents of Table 2 are organized into three forms of inquiry suggested by Nadel. As also illustrated with research examples included in the Table, the phrase "social context" has prospered as an important theoretical and empirical construct across fields of study. Multiple disciplines have contributed knowledge in the areas of inquiry in terms of : (a) What "social context" has -- Character / description (b) What "social context" does – Function /Application , and (c) the whys and hows of "social context" -- Contingencies.

{Insert Table 2 about here}

THE CONCEPT OF "SOCIAL CONTEXT" REFLECTED IN OERI CENTERS

Each of the 17 winning proposals addressed the RFP requirement to propose projects that recognized that education does not take place in a vacuum. Table 3 presents extracts from the proposals that provide indicators of how each Center interpreted the "context of education."

{Insert Table 3 about here}

FRAMING THE WORK OF THE CENTERS

Given that each of the winning proposals was judged as being responsive to the tasks outlined in the RFP, it is interesting to read through the proposals to identify what areas and fields of study were referenced to support new work on assessment, families, communities and children's learning, education in inner cities, cultural diversity and learning, writing and literacy, student learning, learning to teach, postsecondary learning, teaching and assessment, teacher performance evaluation, education policies and student learning, adult literacy, education and work, organization and restructuring schools, mathematics, science, and literature teaching and learning, and education finance and productivity. Appendix A included extracts from the 17 winning proposals. The extracts are organized into categories labeled "Primary Tasks - RFP and Response to the RFP including phrases from the proposals presented by authors as "Mission," "Organizing Framework," "Theoretical Framework," "Major Lines of Inquiry," "Questions to Guide Center's Work, "Rationale for Research Agenda," "Activities," "Projects," and "Tasks." References included in the proposals to support the investigators' case for theoretical and empirical work on the "social context" of teaching and learning are also included for several of the Center descriptions.

As outlined in Figure 1, the discipline of anthropology and the field of study known as sociolinguistics were used the most often to support the theoretical and empirical directions to be undertaken and to frame proposed tasks and research across the centers.

{Insert Figure 1 about here}

The fact that 8 out of 17 OERI Centers are reframing studies of teaching and learning by building on anthropological and sociolinguistic studies may come as a surprise to some. However, the beginning of OERI support for developing educational research capability to consider the context of education from the vantage point of variable interpretations of the meaning of human actions can be traced to the first National Conference on Studies in Teaching.

In the summer of 1974, the National Institute of Education (now reorganized and known as OERI), organized ten panels to provide a long range agenda for further research and development. Five of the Conference Panels framed aspects of the study of teaching processes and recommended research to create knowledge on Teaching as Human Interaction, Teaching as Behavioral Analysis, Teaching as Skill Performance; Teaching as Clinical Information Processing , and Teaching as a Linguistic Process in a Cultural Setting.

Two additional Panels addressed Theory Development and Research Methodology, while three panels were charged with recommending research that will identify factors affecting Recruitment, Selection, and Retention of teachers, Personnel Roles in New Instructional Systems, and Instructional Personnel Utilization.

The achievements of the study of teaching projects and directions that followed these agendas have been described in several synthesis volumes published in Educational Psychologist (Fall, 1983 Volume 18, Number 3), The Journal of Education (Winter, 1985, Volume 167, Number 1), The Elementary School Journal (March, 1983, Volume 83, Number 4), and Theory and Practice (Spring, 1987, Volume 25, Number 2).

It appears from the ambitious list of projects in the 8 anthropological and sociolinguistic focused centers, as well as the cross fertilization of ideas between these Centers and the Centers on Assessment, Student Learning and Organization and Restructuring, that a good deal of important work will take place in the next five years on the "social context of education." The next step will be to address how the findings and perspectives from this work will or will not fit into the next educational agenda currently being framed in policy discourse under the rubric of national and state goals and standards.

TABLE 1

THE EDUCATIONAL RESEARCH & DEVELOPMENT CENTERS PROGRAM
1990-1995

Office of Research
Office of Educational Research and Improvement
U.S. Department of Education

(NOTE: Center Topics are presented in the order in which they were printed in the Request for Proposals (RFP) CFDA No: 84-117-G, 84-117-Q, OMB No: 1850-1602)

TOPICS	CENTER AWARDS
Assessment	UCLA (located in Center for the Study of Evaluation - est. 1975). "Partners": University of Colorado, RAND, National Opinion Research Center at the University of Chicago, LRDC at University of Pittsburgh. To be called CREST Center for Research on Evaluation, Standards and Student Testing: Advancing Educational Quality Through Learning-Based Assessment, Evaluation, and Testing. P.I. Eva L. Baker.
Families, Communities and Children's Learning	Boston (located in Institute for Responsive Education - est. 1973) "Consortium": John Hopkins, University of Illinois, Wheelock College, Yale University. To be called Center on Families, Schools, Communities and Children's Learning in order to spotlight the research priorities to which the Center projects are geared. Co-Directors: Don Davies, Joyce Epstein, Director of Dissemination: Owen Hellen, IRE
Education in the Inner Cities	Temple (located in Center for Research in Human Development and Education - est. 1986) "Collaborators": University of Illinois, University of Houston, 6 School Districts -- Chicago, Houston, Minneapolis, Philadelphia, Alief, Texas, Camden, New Jersey. Director: Margaret C. Wang

Cultural Diversity and Second Language Learning	SUS, CA (Affiliated with the State University System's Linguistics Minority Research Project (Berkeley, Davis, Irvine, Los Angeles, Santa Barbara, Santa Cruz, San Diego, San Francisco, USC - est. 1984). Although included in State Project housed in UC, Santa Barbara, this OERI Center is housed in UC, Santa Cruz "Host Institution Resources" 9 CA Universities, U of Arizona, University of Oklahoma, Center for Applied Linguistics. Directors: Eugene Garcia, Barry McLaughlin, both UC, Santa Cruz
Writing and Literacy	UC, Berkeley, Carnegie - Mellon (located in the Center for the Study of Writing - est. 1985). P.I.: Sarah Warshauer Freedman
Student Learning	University of Pittsburgh (located in LRDC Learning Research and Development Center - est. 1970). Directors: Robert Glaser and Lauren Resnick
Learning to Teach	Michigan State University (located in National Center for Research on Teacher Education - est. 1985). Director: Mary Kennedy
Postsecondary Learning, Teaching, & Assessment	Pennsylvania State University (located in the Study of Higher Education est. 1969) Supervisor: James L. Ratcliff Director: Patrick T. Terenzini
Teacher Performance Evaluation and Educational Accountability	Western Michigan University (located in The Evaluation Center which houses the Joint Committee on Standards for Educational Evaluation; i.e., standards for both program and personnel evaluation - est. 1975) Director: Daniel Stufflebeam
Education Policies and Student Learning	Rutgers U, Michigan State U., Stanford U., U of Wisconsin-Madison, Harvard U (located in the Center for Policy Research in Education, est. 1985 - housed at Eagleton Institute of Politics, one of the major units at Rutgers -- Eagleton Institute of Politic's - est. 1956). Director: Susan Fuhrman "Management Representatives": Michigan State U, David Cohen; Stanford U, Marshall Smith; U of Wisconsin, William H. Cluen; Harvard, Richard Elmore

Adult Literacy	University of Pennsylvania (located in the Literacy Research Center at the Graduate School of Education - est. 1983). Center will be built upon "Contractual and collegial ties - -Subcontracts, rather than a consortium arrangement" 13 primary affiliates, 12 cooperating organizations and institutions (including Literacies Institute, Ohio St U Reading Recovery Program, U of Ill Center for Study of Reading) Director: Daniel A. Wagner
Educational Quality of the Workforce	U of Pennsylvania (located in the Institute for Research on Higher Education - est. 1980) 3 "sponsoring organizations" - U of Pennsylvania, Institute for Reading in Higher Education; U of Penn Wharton School & its Center for Human Resources; Cornell's NY State School of Industrial and Labor Relations Executive Director: Robert Zamsky Managing Director: David Morse
Organization & Restructuring of Schools	U of Wisconsin-Madison (located within the Wisconsin Center of Education Research - est. 1964; National Center on Effective Secondary Schools - est. 1985; National Center for Effective Schools R and D est. 1989) Director: Fred W. Newmann
Mathematics Teaching and Learning	U of Wisconsin-Madison (located in NCRMSE National Center for Research in Mathematical Sciences Ed - est. 1987). subcontracts Harvard, San Diego State U. Director: Thomas A. Romberg - (also Director of NCRMSE)
Science Teaching & Learning	Ohio State University College of Education and College of Mathematical & Physical Sciences Director: Arthur L. White, Chairperson, Science and Mathematics Education COE; Co-Director: Michael H. Klapper, Professor Dept. of Chemistry
Education Finance and Productivity	UCLA (located in the Center for Research on Education Finance est. 1989) Co-Directors: Allan Odden, Susan Fuhrman
Literature Teaching and Learning	SUNY, Albany (located in the Center for the Learning and Teaching of Literature - est. 1987) Director: Arthur N. Applebee; Co-Directors: Judith A. Langer, Alan C. Puarves

Table 2

Selected Examples of Properties of "Social Context of Education"

(i.e. "social context of education" as content and process: content as resource -- a repository of meaning that can be tapped; and process as -- what people do, how they do it, also how much they do and what happens, e.g. accomplishments such as decision making, problem solving)

Character/description: what social context has

- o the sense of direction of relations -- relations analyzed in terms of collections of empirical data "by specified elements, qualities, occurrences, events, incidents, items, units, dimensions, factors, components, episodes, categories, conditions, or circumstances" (Gross, 1969, p. 75)
- o the broad societal expectations which are responsible for the creation and maintenance of schools (Mitchell & Spradley, 1978)
- o the social ideas and ideologies that underlie school practices; the underlying systems of meaning and interpretation provided to specific curriculum designs through the social structures of classrooms (Popkewitz, 1979)
- o the place with a history that influences actions (Phillips, 1981)
- o the state level political culture; leadership; history of centralized and /or decentralized control; and history of federal-state relations (Orland & Goettel, 1982)
- o the histories, influences, and missions which surround and pervade change efforts: these interactive phenomena of context include, norms of the setting, history of the organization, expectations of the staff, leadership support (Griffin, 1982)

Function/Application; what "social context of education" does

(A) Uses: what "social context of education" can do to highlight advances in research.

- o provide "contextual record" of 7 year olds in settings of reading and writing (Biber, Murphy, Woodcock, and Black, 1942)
- o describe a path of how the meanings are specified, modified or changed at larger and larger levels of context [i.e. from "utterance and its accompanying gesture to the flow of discourse in a particular transaction in a particular instance and culture] (Scheflen, 1973, p. 5)
- o use the term as a promise to treat organization structure of key events as the analytic tasks [i.e., analysis of accomplishing classroom lessons] Mehan, 1974
- o describe people as participants in complex systems of behavioral relationships, and not as isolated senders and receivers of messages [i.e., "each action is multiply [sic] informative, and the meaning of each may be influenced radically not only by what preceded it in the sequence but by its relationship with concurrent items and even by future items"] (Ginsberg, 1979, p. 5)
- o provide detailed analyses of the conditions under which learning takes place in school contexts (Glaser, 1979)

Table 2 (cont'd)
Selected Examples of Properties of "Social Context of Education"

- o use the term context to flag or designate interest in moving beyond the sentence to the study of discourse [i.e. discourse then is in large part larger context] (Hymes, 1979)
- o use the term as a referent for studies which attempt to account for all relevant environment influence [i.e. as effect of immediate environment as in biology in the late 1950s] (Bower, 1979; Bronfenbrenner, 1979)
- o use the term as patterns of meanings which become the community, society and culture [i.e. historical context] (Button, 1979)
- o use the term to flag or designate intent to take deliberate efforts to engage people with their social and natural contexts (Martin, 1980)
- o use the term as a promise to treat observable behavior between students and teachers [i.e. to allow for the mapping of contingent relationships that span sequences of interaction; to move away from correlational studies of discrete behaviors towards studies that reflect the dynamic situational nature of social discourse] (Amarel, 1980)
- o use the term to flag or designate interest in moving towards understandings of classroom teaching as content and context (Green and Wallat, 1981):

  Context as : activities
  definitions of situations
  embedded in ideological concepts
  framework for participation
  interactionally constituted situations
  social actions
  social, cognitive, educational consequences
  tasks

- o use the term to flag interest in identification of the educational setting and also the practices and beliefs of the larger society (Greene, 1981a)
- o acknowledge "context" as researchers' interpretations of hidden curriculum [i.e., the place between the researchers' knowledge and the observations made; researcher's active construction of meaning] (McCutcheon, 1981)
- o acknowledge that "context" has various meanings in the literature [e.g. a structure for retelling stories; a semiotic structure where meaning takes place; or all factors within a community, a school district and state department of education which impinge in some way on the production or interpretation of a piece of writing] (Edelsky, 1982)
- o consider the value of ethnographic - sociolinguistic research, a paradigm for understanding and improving teaching (i.e. Ethnographic/sociolinguistic research views teaching as an instance of symbolic interaction; a process referring to meanings that arise out of social interaction and a process of acting on the meaning events have for people) (Gage, 1985)

Table 2 (cont'd)
Selected Examples of Properties of "Social Context of Education"

Function/Application: What "social context of education" does

(B) Modes: How "social context of education" acts

- o accomplishment of a school task [e.g. comprehension and retention of familiar story contexts and/or story Schemata] (Wittrock, 1979), [e.g. reading material in the "context" of perception, motivation, attitudes, values, intelligence, and so on] (Kerlinger, 1979)
- o accomplishment of the mode/style which denies the individuality of the write and posits the reader as a mere receipent --- in contrast to "readerly" frames of literature which posit the reader as an active participant in the interpretation of the text] (Manning, 1979)
- o accomplishment of story building routines in home settings [i.e., routines provide the "context" for language development] (snow and Godlfeld, 1982)

Contingencies: how and/or why "social context" has a contingent attribute in teaching, learning, assessment, and educational policy

(i.e., emphasis of the majority of new OERI Centers
[--- explication of "social context" content and process variables that are amenable to education and change across home, community, school ...]
[--- explication of "social context" as more than a notion of background information, or as a cluster of already given or constant social information, but as a theoretical notion to illuminate socio-cultural judgments in teaching, learning, assessment and educational policy ---]

Theoretical Foundations
Anthropology

- o Context of situation (Malinowski, 1927)

as events in social relationships occur, the components of the context of situation repeat themselves: it is these which begin the process of symbolization -- the meaning of the nature of the interactions by specific persons

Sociology

- o Context as socio-cognitive processes (Gross, 1969)

as socio-cognitive judgments of previous experiences: a durable stock of discriminating categories against which an event is perceived and appraised -- the features through which any subject, topic, text, is part of the variable social cognitive worlds of experience

Table 2 (cont'd)
Selected Examples of Properties of "Social Context of Education"

Sociolinguistics

- Context as social group processes (Slama-Cazacu, 1976)

  as the social groups' means of defining society -- the explicit content of expressions -- the implicit situation created by relations among individuals; the code acquired from social group of family, class, under society, and wider community

- Context is realized as a part of the interaction (Cook-Gumperz & Gumperz, 1976)

  through focus on the social activity that gets accomplished both through and in conjunction with any sequence of talk, we can study how context enters into individuals judgments and performances

Cognitive Anthropology

- Context as a social accomplishment (Frake, 1977)

  context is not there to be seen; its specification is a social accomplishment

Anthropology of Education

- Context as any action which is part of the ecological subsystem (McDermott & Roth, 1978)

  the parameters for the organization of behavior, gender, race, and class become contexts which are said to frame and even cause behavior; the environments that people build for each other with their behavior in social organization; the interactional work of individuals building environments for each other -- work in the construction of recognizable social scenes or events through:

  concern for common codes
  concern with native knowledge
  concern with information management

Anthropology of Education

- Context as how the definition of a situation evolves (Erickson & Schultz, 1981)

  as the features of social behavior that people organize to be able to decide when a context is as well as what it is (cf. Lewin, 1943 -- Defining the field at a given moment
  Barker, 1963 --- a child in a baseball game behaves baseball)

Table 3

The Concept of Social Context Reflected in OERI Educational Research and Development Center Proposals

Assessment

Tasks will be undertaken within "the context of our ability to examine the current status of achievement, and, to appropriately condition analyses for learning contexts and conditions."

Education in the Inner Cities

the RFP tasks of developing models for comparing outcomes of multiple city educational ecologies, and community creating institutions, will be undertaken within a theoretical framework that includes building on concepts of ecological validity, variability in achieving similar goals, and participant perspectives. Family, community and adolescent-age projects will place an emphasis on uncovering social processes and giving attention to the details of the social context and the immediate situations of a developing person.

Cultural Diversity & Second Language Learning

The Center will build upon paradigms that consider cognition to be socially constructed. Ethnographic and sociolinguistic research can be built upon to temper a mechanistic view of schooling with a sociocultural view that accommodates cultural elements such as social class, ethnicity, family-school relationships, decision making, and peer relations.

Writing and Literacy

Anthropological and sociolinguistic work has provided general descriptions of schools -- i.e. schools as places where students are initiated into academic discourse communities. The Center will expand a social cognitive theory of writing by turning these general descriptions of schools into frames for action. All Center projects will demonstrate concern with the nature of school contexts that support teacher participation and reflection about new possibilities for literacy and the kinds of support teachers need to make these possibilities happen.

Student Learning

We will take advantage of: Theories of human development that emphasize: the social genesis of learning (Vygotsky, 1978) and the motivational advantages of group interaction and cooperative learning; the current research environment's expansion of research on human cognition to include questions of social context; and parts of anthropology and sociology, and linguistics and philosophy that now reach beyond psychology's discipline base.

Table 3

The Concept of Social Context Reflected in
OERI Educational Research and Development
Center Proposals (cont'd)

Learning to Teach

Accomplishing the Center task of establishing the territory of learning to teach will take place within 4 framing elements: the context of public expectations; the context of shifting understandings of learning; the context of multiple models of teachers tasks; the context of disparate lines of work (e.g. work aimed at deriving principles of good practice, work that emphasizes the situation-specific nature of practices)

Adult Literacy

Our comparative interpretative frameworks for the study of adult literacy and family literacy are based on a cognitive anthropological perspective of literacy development. It draws upon the relationship between participation and cultural systems of values, meanings and motivations of participants, and upon schema and cognitive script theory from cognitive psychology and comparative studies of cognition in everyday settings. In contrast to school-based frameworks that focus on the social and contextual characteristics of the family unit as potential obstacles to overcome in order for learning to occur, models based on cognitive anthropological frameworks provide focus on the family as a source and user of knowledge; and, may allow us to sustain interest and participation.

Organization and Restructuring of Schools

Two synthesis studies will be completed. The first, on "Professional Lives of Teachers" and the building of social capital will renew the perspective represented by Waller (1932): the importance of looking beyond the school site to consider social organization of the community at large. The second, "Conditions for Productive Discourse in Small Groups," will address how new research in cooperative learning could address: developing substantive conversation in groups, minimizing status inequities among students, and locating organizational supports beyond the classroom that will support students and teachers in efforts to generate productive discourse in small groups.

Table 3

The Concept of Social Context Reflected in
OERI Educational Research and Development
Center Proposals (cont'd)

Mathematics

The RFP tasks included conducting research on how different cultural, linguistic, and gender differences support or obstruct mathematics learning. The primary sources the Center will use to accomplish this task include anthropological and sociolinguistic work on every day cognition, and culture and cognition (e.g., Lave, 1988; Rogoff & Lave, 1984).

Science

The RFP tasks include conducting research on how different cultural, linguistic and gender differences support or obstruct science learning. The primary sources the Center will use to accomplish this task include the anthropological and sociolinguistic works which were included in the mathematics proposal as well as Cole, 1985; Lemke, 1982 & Taylor, 1988.

Literature

Center work is based on a sociocognitive view of learning. Learning is seen as being socially based, and cognition (in particular ways of thinking) as growing out of those socially-based experiences. Social settings are where children learn how different forms of knowledge are used and communicated -- what counts as knowing and what knowledge "looks like;" -- what values are respected and what habits are to be cultivated. Center work is also based on a sociocognitive view of instruction. Community and classroom projects will focus on the ways in which this anthropological and sociolinguistic work contributes to a teacher research epistemology in the area of literature.

FIGURE 1

Office of Research
OERI
U.S. Department of Education
17 Centers Funded (1990-95) (18th was pulled i.e. Dissemination)

The concept of "social context": Building upon anthropological and Sociolinguistic work

Score Card

8 yes
6 no
3 ?? could tip the paradigm shift

Yes	No	Could tip the scale
Inner cities	Families, Communities	Assessment
Cultural Diversity	Postsecondary	Student Learning
Writing & Literacy	Teacher Evaluation	Organization & Re-structuring
Learning to Teach	Ed Policies	
Adult Literacy	Workforce Quality	
Mathematics	Ed Finance	
Science		
Literature		

(Note: The order of presentation within the "Yes", "No" etc. follows the order of presentation in the RFP.)

APPENDIX A

Extracts from Descriptions of Primary Tasks
of 17 OERI Centers from March 1990 US
DOE Request for Proposals, and
Extracts from 17 Winning Proposals

Assessment, Evaluation and Testing
Families, Communities, and Children's Learning
Education in the Inner Cities
Cultural Diversity and Second Language Learning
Writing and Literacy
Student Learning
Learning to Teach
Postsecondary Learning, Teaching, and Assessment
Teacher Performance Evaluation and Educational Accountability
Education Policies and Student Learning
Adult Literacy
Educational Quality of the Workforce
Organization and Restructuring of Schools
Mathematics Teaching and Learning
Science Teaching and Learning
Education Finance and Productivity
Literature Teaching and Learning

Note 1: Organization of the extracts follow the order of Presentation of Center Missions, Tasks, & Illustrative Studies in the March 1990 RFP released by U.S. Department of Education

Note 2: Special Instructions to all applicants included the following:

Pay attention to National Goals

Organize a multidisciplinary staff with diverse academic backgrounds including disciplines such as human development, psychology, sociology, anthropology, history and philosophy**

Work with practitioners, policy audiences, universities, States, National Organizations, other R & D Centers

** All proposals addressed these special instructions, generally naming disciplines. However, most also included, in their "Institutional Capacity" statement, categories of applied fields such as educational assessment, the study of teaching and innovation, educational policy, educational methodology

Assessment, Evaluation and Testing

Primary Tasks - RFP

Offer a credible national perspective on assessment, testing and evaluation (i.e. throughout all activities, develop a new framework for thinking about the nature and role of testing in our society and, develop clear ways to report the results of performance tests to policy audiences)

Develop better alternatives based upon analysis of data, practices and needs

Create maintain, and analyze a national inventory of formal and informal performance assessment practices across institutions, (i.e. schooling, military, government, corporations, the arts, and families – school readiness)

Develop theories, models, and methods for assessing the context in which learning takes place

---

Center on Assessment, Evaluation and Testing

(Source: UCLA Proposal June 15, 1990)

Mission:

Improve the value of assessment for American schools
Increase the convergence of educational quality in public perception

Conceptualization of the foundations for this mission:

i.e. Building a National Perspective of the Assessment World, and Influencing the Perception of Educational Quality, can be accomplished by attending to:

- o perceptions of qualities held by various publics (especially teachers', parents', policymakers', and administrators' cultural conceptions about assessments)
- o social political contexts (economics, politics,demographics, resources)
- o American values (pluralism, fairness, individualism, excellence, community, self-renewal)

Explanations of why the current lack of convergence:

When assessments go wrong, it is because they conflict with these values (e.g. the test wasn't fair, the test has bias, the test forced conformity, tests waste everyone's time since systems find ways to work around them and tests are symbolic at best). All assessment systems have limitations and are to some extent corruptible. Thus, it is unwise to depend exclusively on a single source of data for judging educational quality.

We lost the practical understanding that the numbers stood for something more complex and important than themselves, a danger identified much earlier by Wittgenstein in his analysis of language. (High stakes demanded responses and drew attention. Unintentional but nonetheless undesirable messages were sent to students and teachers by the format of tests, often composed of many decontextualized, multiple-choice, or short answers to be answered under severe time limits. Such tests, especially as their salience in instruction grew, emphasized quick superficial answers, atomization of concepts, and the single "right" answers. Moreover, they may actually sabotage efforts to develop students thinking and problem solving skills, and attitudinal outcomes of persistence, engagement, and commitment. These capacities are crucial for further learning, responsible citizenship, and productive employment.)

Developing Alternative Approaches

Attend to complex learning and processes (A variety of forms of assessment, including constructed response, hands-on experiments and manipulations, simulations, portfolios, will be studied. Regardless of form, however, the emphasis will be on assessments that engage students in reasoning, problem solving, and the development of explanations that provide a means of demonstrating depth of understanding and the integration of knowledge across different subject-matter domains.)

Overcome the lack of conceptual work on questions of criteria for evaluating alternative measures (criteria including fairness; meaningfulness to students and teachers; cost and efficiency; assessing prior knowledge and ways students interpret the content presented; and, variable views of reliability -- reliability defined as: (a) degree to which performance is topic or task specific or dependent on particular rating procedures or raters and (b) evidence of both near and far transfer such as the ability to use skills demonstrated on an assessment to solve real-world problems.)

Developing theories, models, and methods for assessing the context in which learning takes place.

Conduct Assessment Watch Conferences (e.g., Vermont is the only state in which non-traditional assessments will, in the immediate future, constitute the majority of the state's assessment program.)

Organize formal synthesis by practitioners

Develop conceptual analysis of interplay between policy goals and assessment design (e.g. work towards designing systems that can now be designed from the beginning to meet high technical standards and also legitimately serve specific policy objectives)

Explanation of the state-of-the art (i.e. The context of the Center's ability to examine the status and progress of educational achievement and to appropriately condition analyses for learning contexts and conditions):

> If we hope to bring new forms of assessment into schools (either as part of teachers' ongoing practices or as useful, externally mandated programs) we need a much better understanding of the assessment "culture" within schools. We need to investigate what forms the schools' response (and resistance) to new instruments may take. And we need to identify the development and implementation strategies most likely to help teachers alter their cultural conceptions and beliefs about assessment strategies and the information they provide.

Statement regarding attending to complex learning and processes:

> Theories of learning and cognition have changed dramatically over the past two decades. The earlier notions of fixed learning hierarchies built upon the accumulation of many discrete facts and skills have given way to conceptions that emphasize active involvement of the learner in reasoning, constructing mental representations, organizing and reorganizing knowledge structures, and self monitoring (e.g., Glaser, 1984, 1986, Resnick, 1987). Knowledge acquisition is not simply viewed as the accumulation of unrelated facts, but "as the successive development of structures which are tested and modified or replaced in ways that facilitate learning and thinking" (Glaser, 1984, p. 101). As Shepard (1990) has argued: conceptions and processes of measurement have not kept pace with these evolving understandings of learning and cognition.**

What will the inventory encompass?

Science assessment — compare experts and novices in elementary physics

Mathematics assessment — study specific participant contexts aimed toward engaging participants in reasoning and/or becoming apprentices in socially valued thinking and reasoning (middle school)

History assessment — draw upon the fact that history is, of course, a story (secondary school)

Geography assessment — compare novice/expert approaches in relying on symbol systems (i.e. visual and schematic approaches rather than verbal approaches in objective tests and essay tests)

Assessment of Group Problem Solving Skills

Assessment of Workplace Readiness

Assessment of Portfolio Designs

Assessments of simulations in certification in military, medicine, and legal skills

Assessments of Early Childhood School Readiness and Developmental Screening

Options for Assessing Dropout and Graduation Rates

Indicators of Disruptive School Environments (and indicators of conditions that lead to unsafe schools)

Indicators of School Restructuring

At-Risk Context Indicators

Indicators of School Learning Opportunities

** See Centers for Inner Cities, Cultural Diversity, Writing and Literacy, Learning to Teach, Adult Literacy, Mathematics, Science, and Learning and Teaching of Literacy

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FAMILIES, COMMUNITIES, AND CHILDREN'S LEARNING

Primary Tasks - RFP

Address four broad questions: (1) what and how do various families teach, and what accounts for the differences among them? (2) how can families and communities better educate their children? (3) what and how do various community institutions teach, and what accounts for the differences among them? and (4) how and why do community networks promote education?

Reveal how families and communities from America's many social and cultural backgrounds cultivate children's learning

Examine children's learning at home as well as in public and private education and childcare programs

Build on existing child-development knowledge and include children of all ages, from birth to adolescence

Identify how families and communities promote cognitive, interpersonal, and affective habits and values

Inform debates about the importance of shared values in sustaining educationally effective community networks in sustaining educationally effective community networks

Give attention to larger social factors which create different circumstances relevant to educational growth, and the larger society which exerts influence through such activities as social programs and the dissemination of practical advice based on educational research findings

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Center on Families, (Schools), Communities and Children's Learning

(Source: Consortium -- Boston U, Institute for Responsive Education, John Hopkins, U of IL, Wheelock College, Yale U Proposal, June 15, 1990)

Organizing Framework:

a. A model of overlapping spheres of influence on students' learning and development

Some practices schools, families and communities conduct separately and others jointly (i.e., our social-organization perspective addresses:

independent variables - families bkg, student characteristics, school and community practices, student motivation

dependent variables - student achievements, attitudes, behavior

b. Justification for adoption of this model (i.e. existing knowledge points out that:

* school practices affect family practices (i.e. building partnerships with parents is feasible)

* over 90% of parents of elementary and middle school students believe the school should tell them how to help at home

* over 80% of parents of high school students believe the school should tell them how to help at home

* roughly 20% of parents are already partners with schools, about 10% may be unable to cope with responsibilities for parenting, and about 70% of parents report they need information about and would like to be more effective partners with the schools in their children's education

c. Justification for the Center's activities focus on school-based knowledge

* the title of the Center should be changed to include schools – i.e., Center on Families, Schools, Communities and Children's Learning – justification: "To include school in the title is requested to spotlight the explicit linkages of the Center's mission"

* only a small percentage of teacher and administrator training institutions offer a separate course on parent involvement (e.g. 4% of southwest region teacher training institutions)

Activities:

Develop video-conferences (Following the May, 1990 Learning Channel showing of the Centers' video-conference on Schools Reaching Out: Building New Partnerships for Student Success – 250,000 audience)

Synthesize effects literature on Parent Education

Study interactions in 40 families of K-2nd grade children identified by their teachers and school records as successful in schools

Compare types of school-to-home communication provided by 16 2nd and 4th grade teachers to children in the class who are at risk of school failure (expect to find 5-6 in each class – 20% in each class are at risk)

Evaluate Prevention Interventions in Baltimore City Schools for children identified at risk for antisocial behavior and heavy substance use.

Conduct exploratory studies of natural support systems of 35 Puerto Rican families; the integration of family support and mental health services in 6 elementary schools; and, the effects of 2 parent/child literacy programs in Baltimore City schools

Enact teacher-parent research teams to study the community, families, and the school

Design a information system to collect information about schools of choice

Evaluate homework programs for middle grade (the TIPS Program - Teachers Involve Parents in Schoolwork -- "requires students to talk, discuss, get reactions, survey others for ideas, and interact in ways to 'keep school on the agenda at home'"

Expand existing survey to sample 5 types of parent involvement at middle and high school levels

Develop course for administrators

Identify components of successful program for 15 adolescent mothers

Study D.C. Community Coaching Program aimed at developing skills and behaviors needed for performance in school, and Youth Services in New Jersey.

EDUCATION IN THE INNER CITIES

Primary Tasks - RFP

Look beyond the boundaries of the school site to gain understanding of how the urban ecology affects inner-city education

Carry out an integrated research and development program focused on social, economic, cultural, and political conditions affecting the lives and learning of inner-city children and youth and the educational institutions that serve them

Analyze existing supports and constraints on educational improvements (no single model or blueprint for reform is expected -- instead, expand research based knowledge of the relationships between inner city education and the urban ecology)

Assess promising and broadly applicable strategies (e.g. inner-city schools working with human service and health education agencies; collaborating with local business community; enacting decentralizing decisionmaking, alternative educational structures, including magnet schools,parent choice programs, multifacet parent partnerships and after school programs)

Conduct theoretical activities, including efforts to synthesize and consolidate theoretical directions

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Center for Education in the Inner Cities

(Source: Temple University Proposal June 15, 1990)

Three program areas:

Family
School
Community

Theoretical Framework across all areas:

Bring together constructs of ecological validity, variability in achieving similar goals, participant perspectives

Family Area: Studies emphasizing

- Socialization practices
- Mediated learning experiences
- Utilization of community resources
- Problems of inner city adolescents

Families: Theoretical framework choices

LeVine (1969)	Child socialization practices are selected and maintained because they provide protection against environmental pressures
Littlejohn (1978)	Families have the ability to accomplish a similar goal in different ways and from many starting points
Heath (1983)	Research on socialization must take a full ecological perspective and be built from insiders (family members) perspective

Justification for theoretical choices:

Need for frameworks which escape ethnocentric view that guides many parent education programs (i.e., programs that assume certain practices are "better" and lead to more "right" outcomes)

School Area: Studies Emphasizing

Identifying resilient students and teachers; life cycle of improving schools; systematic reform attempts

Building local school sites research and evaluation capacities through quite simple ways such as having local school staff look at different characteristics of individual children. (i.e., Schools taking a close look at students who fall in the bottom and the top fifths of their classes and drawing attention to school operations)

Identifying how alternatives to organizing programs by categories based on presumed causes can be enacted

Identifying how attention to school operations can draw focus away from the narrowly framed categorical approaches now common

Schools - Theoretical Framework Choices

Garmezy (1983, 1986)	Social context dimensions of resilience can provide understandings of those who beat the odds
Carnegie Foundation for the Advancement of Teaching (1988)	The life cycle of improving inner city schools can be identified and explicated along 15 dimensions (i.e. 15 criteria for inner-city school effectiveness)
Brophy (1986)	There is no evidence that distinctly different methods of instruction are required by children grouped according to various categories: new research will need to focus on children at the margins -- low and high standings using current assessment measures
Reynolds & Lakin (1987)	Current narrow-categorical approaches to individual differences in the schools have not worked well in the forming of a cumulative knowledge base (i.e., there is much uncertainty about who LD, EMR, and Chapter 1 children are)
Freiberg et al (1990)	"Half-life" factors -- or schools at risk can be identified (i.e., The concept of "half-life" examines the decay which eats away at efforts to improve the learning environment for inner-city students)

Adolescent Project

Need to check out whether Fordham and Ogbu's (1986) model of underachievement of African-American adolescents holds up with a new sample of 3,600 9-12th graders (i.e. testing findings which suggest that African-Americans do not perceive themselves as able to compete in schools, nor benefit from educational achievements)

Choice of theoretical framework

Places an emphasis on uncovering social processes and gives attention to the details of social context and the immediate situations of a developing person.

Note: The explanation of why the Center did not choose Ogbu's context model was: Ogbu does not allow for the possibility of contexts where African-American and White (and other racial/cultural groups) identify and have strong friendships. Instead, following Comer (1988), the Center asserts that the key to academic achievement is to promote psychological development in students which encourages bonding to the school.

Community Projects
Development of a research program that incorporates Bronfenbrenner's ecological systems theory (i.e. a fully articulated theory capable of a realist epistemology, and capable of stressing the importance of cultural context in causal processes.)

Activities
Development of a National Urban Education Data Base capable of distinguishing between different inner-city contexts; systematically developing models for comparing outcomes of multiple City Educational Ecologies. Economic Monitoring; and identifying intervention strategies detailing the odds for and against success and how schools become Community Creating Institutions

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Freiberg, H.J., Prokosch, N. Treister, E.S. & Stein, T.A. (1990). Turning around five at-risk elementary schools. Journal of School Effectiveness and School Improvement, 1(1), 5-25.

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CULTURAL DIVERSITY AND SECOND LANGUAGE LEARNING

Primary Tasks - RFP

Focus on ways to improve the quality of education for students whose first language is not English and to make them proficient in English (include consideration of the cultural influences of family and community on educational achievement, particularly second language acquisition, as well as the ways in which cultures affect learning in schools)

Focus on second language acquisition: learning, assessment, and instruction (include consideration of the following proposition – understanding concepts and issues related to the relationships among culture, language, and learning is essential in assisting parents, practitioners, and policymakers in developing effective education for the Nation's culturally diverse children)

Consider the culture represented by the student's first language and the relationship between that culture and the American culture found in the schools (include consideration of the different concepts of education different cultures may have and how their processes and goals may vary from standard American practices)

Cultural Diversity and Second Language Learning

(Source: SUS CA, The Linguistic Minority Research Project, June, 1990)

Mission

* Promote a research paradigm
  Build upon paradigms that consider cognition to be socially constructed

  Build upon ethnographic and sociolinguistic research which tempers a mechanistic view of schooling with a socio-cultural view that accommodates cultural elements such as social class, ethnicity, family-school relations, decision making, and peer relations (i.e., expand the notion of social class to accommodate these cultural elements)

* Demonstrate national leadership by promoting awareness, understanding, and application of the following conceptual framework:

  In the sociolcultural approach to the development of thought, language is seen as a semiotic tool, mediating among participants in a social interaction and impacting their ways of thinking about the world. Language socialization research details the nature of this process.

* Assist schools in creating an environment that promotes "instructional conversations" among students, parents, teachers, administrators, program developers, and researchers

  Language socialization research examines the socializing impact not only of language content (symbolic dimensions), but also the socializing impact of language practices - the grammatical and discourse organization of language in context - and the interface of content and practices to the social order.

* Build upon socialization research which has identified universal teaching/learning strategies that are identifiable, regardless of the language of instruction

  Features of universal teaching/learning strategies include <varied activity settings> <language development activities> <varied sensory modalities in instruction>

<responsive instructional conversation> <increased cooperative and group activities> and <an acted upon sensitivity to students' knowledge, experience, values>.

Major lines of inquiry

Language socialization -- development of thought
Alternative forms of assessment
Alternative social organization of schools

Framework for Considering Language Socialization

"Social theory of human development"

Vygotsky, 1962
Scribner & Cole, 1981
Rogoff, 1990
Tharp & Gillmore, 1988
Cicourel, 1973
Griffin & Cole, 1984
Schieffelin & Ochs, 1986

Children learn to use the inventions, tools, and techniques of society (such as language, mathematics, science, and memory devices) through practices that facilitate culturally accepted solutions to problems. (Thus the cultural tools, techniques, and interpersonal relations used and organized in schools involve specific conventions and genres.)

Framework for Considering Assessment

Look at assessment as a social process,
including the understandings and everyday practices of those who do the assessments

Rogoff & Morelli, 1989
Mehan, 1978

Much useful information has been gained from studies of the effects of home-school discontinuity on the link between family environment and school achievement. However, an emphasis on status variables and unidirectional models of influence suggests few next steps to deal with deficit assumptions and grouping practices in schools.

Framework for Considering Social Organization of Instruction

"Instructional conversations"
"Adults and peers as 'cultural amplifiers'"
"Heterogeneous grouping as an alternative"

Bernstein, 1973
Cazden, 1988
Erickson, 1975
Heath, 1986
Mehan, 1979

Social interaction with adults and/or siblings who are more expert in the use of the material and conceptual tools of the society is an important cultural amplifier to extend the child's cognitive processes.

Explanations of current instructional contexts

* The classroom represents a culture (society – social system) in which implicit, often unstated demands operate. A certain way of talking, thinking and acting is expected and/or demanded by teachers. A body of knowledge is supposed to be transmitted from teacher to student. Typical characteristics of the classroom culture include a concern for factually correct information, the use of "known information questions" in verbal instruction, the display of an instance on text-based

knowledge, and a high value attached to naming, labeling, and categorizing information, especially out of context. Like other aspects of culture, these dimensions are tacit and are expected to be implicitly learned.

* For domains that are well structured (e.g. arithmetic computations and reading decoding) - a reasonably well defined set of teaching procedures, or functions, have been identified that increases the likelihood of student learning. But for other domains - those less clearly and hierarchically organized, such as analyzing themes in literature, comprehending complex social or ethical ideas, and composing oral and written presentations - the teaching functions of the recitation and direct instruction lesson are unlikely to be directly applicable.

* It is important to see whether heterogeneous programs being implemented in a few districts -- i.e. programs to make explicit the often implicit hidden curriculum of the school -- improves educational performance of students previously tracked as low achieving students.

Activities - Research Topics in Home, School, Community Sites

Language Socialization

Family problem-solving discourse
Across-classroom-cultures case studies in science sense-making

Alternative forms of Assessment

Develope a portfolio assessment system which includes teachers in the participatory task of determing what factors influence teachers' beliefs and practices about assessment of writing and literacy

Alternative social organization of schools

Analysis of organizational constraints operating against enactment of alternatives
Analysis of cooperative learning in terms of key elements of participation explicated by Tharp & Gillmore
Analysis of "untracking" in school systems
Analysis of literacy relationships between household information, classroom practices, students' reading and writing, and their progress in these areas

(NOTE: Analyses to be undertaken by teacher study groups)

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WRITING AND LITERACY

Primary Tasks - RFP

Build a Foundation for Future Research

Build the foundation to understand more fully how students learn to write, the strategies they use as they learn to write, and the factors that influence the acquisition and development of writing skills

Expand the Theories Upon Which Future Research Can be Based

Expand the theoretical base to study students from all grade levels (pre-Kindergarten to postsecondary), and from all diverse cultural and linguistic backgrounds (i.e., studies should include influence of home and community to literacy needs of the workplace)

Improve Classroom Practice

Study areas of inquiry critical to improving writing; to promoting effective teaching of writing; and to promoting responsive and responsible measures of assessment

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Center for Research on Writing and Literacy

Source: Proposal, UC, Berkeley and Carnegie-Mellon, June 15, 1990)

Mission

Build a foundation for future research
Expand the theories on which future research can be based
Improve classroom practice

To Accomplish the Mission introduced in the RFP, the Center will:

- Expand a social cognitive theory of writing
- Build a wider cultural frame in literacy by building a sociocultural view of learning
- Integrate social and psychological visions of literacy and integrate horizontal and vertical visions of development -- i.e., implement an approach to the study of classroom literacy development which posits that all literacy and story making activities involve: relationship among participants, guiding intentions, appropriate content, composing/comprehending processes, organizational structure, language features, and encoding/decoding rules for medium used
- Turn general descriptions of schools as places where students are initiated into academic discourse communities, into frames for actions -- i.e. into a vocabulary that can help describe literacy practices (a "research-sensitive" language that is not used as offering simple prescriptions for pedagogical practice, but a vocabulary that includes constructs to address the urgent needs for engaging all students in the active, functional use of written language)
- Build teacher research as an epistemology in its own right (i.e. explore how the kinds of knowledge in multicultural classrooms contribute to building a socio cultural view by involving teachers in determining underlying instructional principles powerful enough to help resolve some of the major tensions that create barriers to literacy learning (e.g. tensions that emerge around assessments will be addresses through helping teachers in their creation of theoretical frames to guide assessment reform)

Across all projects, the Center goal is:

- o Demonstrate that our "research-sensitive" agenda contributes to "research-sensitive" practice in schools

More broadly, all Center projects will:

- o Demonstrate concern with the nature of school contexts that support teacher reflection about improving classroom practices and identifying new possibilities for literacy and the kinds of support teachers need to make these possibilities happen

- o Address its Home, school, community and workplace studies to answer:

a. How to help teachers recognize and help students resolve the conflicts, and resulting motivational and attitudinal tensions they face when asked to adopt literate "voices" they regard as awkward or even alien or threatening to their own sociocultural identities (Cazden, Diamondstone & Naso, 1990; Ogbu, 1990)

b. How to help teachers recognize and help students resolve the demands of multiple literacies – that written language is always "embedded" – that it always figures into particular kinds of communicative events and activities, often not part of classroom practices (e.g. like "speech events" (Hymes, 1972) literacy activities or events are characterized by varied components, including settings, participants (senders, receivers), purpose and goals, message form, content, channel, key or tone, and rules governing the sort of writing and talking that should occur)

c. How to help teachers focus on students writing experiences in classroom settings while acting upon understandings of the kinds of connections that exist between students' literacy experiences in and out of school

d. How to help teachers deal with the problematic nature of creating opportunities for students to engage in higher level thinking demands; the demands of feeling socially and emotionally connected to the academic world; to acknowledge the "centrality of human relationships" to student learning

e. How to help teachers learn about the nature of school contexts that support teacher reflection about instructional issues; that stimulate and then sustain efforts to make education successful for low SES and minority students who may not be engaged (i.e. to restructure literacy more generally)

f. How to help teachers build on studies of individual cognitive processes from the 1970's; studies of the immediate social contexts surrounding these processes in the 1980's (i.e., studies of how writers form interactive relationships with adults and peers that shape part of what they write, how they write, where they write, when they write); and current studies which integrate cognitive processes and social contexts work to explain how the complex of sociocultural experiences < experiences that have roots in social class, ethnicity, language background, family neighborhood, gender> cues cognition

g. How to help teachers turn descriptions such as the following into actions

> Integration of cognitive processes and social contexts can help explain how context cues cognition (context < > cognition, which in turn mediates and interprets the particular world that context provides)

Explanations of why this research agenda task is needed (i.e., Past research has contributed general descriptions that point out:

Writing can no longer be viewed as a neutral problem-solving skill; a rote demand of writing skill

Writing can no longer be viewed as explicit; as able to exist on its own; as meaningful for an "literate" person in any situation

Literacy can no longer be viewed as a monolith; as a single ability or capability

Currently available large scale assessments of writing abilities are, in general, limited to rating one kind of written material in one kind of context

Explanations for Expanding a Social Cognitive Theory of Writing, Building a Sociocultural Frame in Literacy Studies, and Building Teacher Research as an Epistemology

Writing must be viewed as a way of entering a range of new kinds of cultural dialogues; of participating in some kind of human discourse; as a way of giving voice; as a way of adapting to the multi-dimensional aspects of literacy

The varied "voice" of students must be heard; the ways they enter new kinds of cultural dialogues are not generally known to researchers, practitioners, policymakers, etc.; the ways individuals adapt their own "voice" to a staggering range of distinct practices in key home, community, school, and workplace settings is generally not known

Children's home and community activities or events become the experimental framework guiding their use of oral and written language

When they come to school, children bring experiences with kinds of settings, purposes, moods, and messages that imbue oral and written language with meaning (Hymes, 1972; Basso, 1974; Heath, 1983)

They bring, in Baktin's (1986) sense, ways of dialoguing with the world - a repertoire of "genres" or familiar ways of using language. These ways of using language are resources they draw upon in school tasks. Much pedagogical literature reduces these resources to differences or evidence of the failures of families to initiate their young in literacy

Acknowledging students' range of cultural dialogues; multiple literacies; active, functional uses of written language builds upon research, including:

Shaping a narrative	Dyson, 1989
Doing analytical writing	Dyson, 1987
Explaining scientific concepts	Ammon & Ammon, 1990
Arguing persuasively	Flower, 1990
Inquiring effectively (e.g. writing ltrs. of application)	Hayes et al, 1990
Integrating writing with ways of living (e.g., historical and geographical conditions, social and economic resources and opportunities, religious beliefs, values and motivations)	Cole & Scribner, 1977; Scribner & Cole, 1981; Heath, 1990; Philips, 1975; Resnick & Resnick, 1990
Gaining functional control over discourse forms that place authors in particular stances towards anticipated readers	Bruner, 1986

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STUDENT LEARNING

Primary Tasks - RFP

Examine a broad spectrum of higher order thinking and learning skills, including:

- o How students acquire new knowledge (i.e. integrate/assimilate new information quickly and accurately)
- o How students grasp complex ideas
- o How students organize their thoughts coherently
- o How students express their ideas intelligently and effectively
- o How students reflect critically on knowledge
- o How students use knowledge to reason and solve problems
- o How students analyze and solve challenging problems

Examine thinking and learning skills across age/grade level (i.e. older children and adolescents/upper elementary and high school)

Draw upon a new science of human learning (i.e. a new science of learning that has emerged from the integration of research from cognitive psychology, cognitive development psychology, human and artificial intelligence, neuropsychology, instructional psychology, anthropology, and philosophy)

The 3 questions to guide the Center's work are:

1. What is the nature of these thinking and learning skills?
   (i.e. produce precise descriptions that are of practical use in decisions about designing programs to enhance thinking and learning)

2. How are thinking and learning skills acquired?
   (i.e. delineate the forms of knowledge and the nature of thinking skills and learning strategies which are pertinent to school curriculum)

   Examples

   a. how understandings of types of representations are the building blocks of core concepts
   b. how the experiences of social interactions and growing up in a particular sociocultural setting may influence students' reasoning strategies
   c. how thinking and learning skills are used in daily activities

3. How can thinking and learning skills can be taught
   (i.e., describe how types of reasoning demands are encountered in daily activities)

Center for Student Learning

(Source: LRDC Proposal June, 1990)

Mission

By interpreting and analyzing the new body of reasoning-processes research developed in the last two decades, the Center can work with practitioners and key educational policy audiences to explicate the new demands on schools and instruction, and can advance the research foundations for thinking-oriented education

The Center for Student Learning Research Agenda/Themes:

1. Reformulating General Abilities
2. Teaching Thinking Within School Subjects (History, Mathematics, Geography, Science)
3. Utilizing Prior Knowledge
4. Considering the Social Context of Knowledge

Rationale for Above Research Agenda

An important feature of the current research environment is the expansion of research on human cognition to include questions of motivation and social context.

The relevant disciplinary base for understanding learning now reaches beyond psychology to include parts of anthropology and sociology, linguistics and philosophy.

An important aspect of a social context frame for a thinking curriculum is the elevation of thinking to an overt, observable status. A striking point of convergence among programs for teaching thinking is their frequent recommendation that students do much of their work in groups.

Work in the area of socially shared cognition highlights a number of teacher control dilemmas that can be addressed in Center projects on the extent of active participation; the nature of group tasks and negotiation; revision of texts by groups of children; and patterns of discourse in peer groups. These projects can be undertaken by extending studies of motivation to consider what is learned, through taking advantage of what is now known about the motivational advantage of working in groups < i.e. take advantage of theories of human development that emphasize the social genesis of learning (Vygotsky,) and the motivational advantages of group interaction and cooperative learning>.

The Center's Research Agenda

1. Reformulating General Abilities

   The need to reformulate general abilities is based upon the fact that transfer remains elusive. (The belief that the mind can be "disciplined" through particular forms of study, and, the belief that some subjects are especially privileged for teaching reasoning, has been scientifically discredited. We are not suggesting that literacy learning in one domain doesn't transfer in many ways to other literate acts. However, we are suggesting that we have traditionally underestimated the challenge this adaptive, multidimensional literacy presents.**

** See Centers for Inner Cities, Cultural Diversity Writing and Literacy, Learning to Teach, Adult Leteracy, Mathematics, Science, and Learning and Teaching of Literature

   Two reformulations of the concept of general abilities suggest aspects of cognition that are crucial to learning.

   o First reformulation -
     Self-monitoring (self-regulation)

     * monitoring one's own knowledge
     * deciding when to apply strategies

     Example of the reformulation of self-monitoring (self-regulation)

Internalization of the social activity of read text, pose questions, summarize, ask for clarification, predict events to come in the text

Example of research based on above

Extend the range of contexts in which skills for the self-regulation of learning is taught (i.e. analyze beyond reading comprehension)

- Second reformulation -
  Intentional learning

  * general ability is less a matter of skills or knowledge than of habits and use

  Example of the reformulation of general ability

  What is general in learning may be a set of dispositions to treat situations as occasions for knowledge building, self-explanation, and questioning

  Example of research based on above

  Extend understanding of the idea of cognitive apprenticeships (i.e. in contrast to the usual school practice, cognitive apprenticeship projects engage students regularly in socially shared intellectual activity; involve them not in decomposed exercises, but in complex tasks with opportunities to manipulate and observe actual events and materials and not just their symbolic representations)

Examples of projects within the Center's themes of: Thinking Within School Subjects; Utilizing Prior Knowledge; The Social Context of Knowledge

- Discover the difficulties and promises of creating cognitive apprenticeship environments in schools
- Design classroom environments to enable students to function as apprentices in thinking
- Analyze classrooms as communities for thinking -- classrooms that stress there are many ways to solve a problem and invites children to invent these multiple solutions and then to explain and justify their solutions using everyday language (i.e. various opportunities for practicing different forms of reading and thinking appropriate to different subject matter)
- Examine teacher and textbook explanations in various school disciplines (i.e., each discipline has characteristic ways of reasoning -- scientists and mathematicians think in qualitative ways, and present the terms of justification in formal and deductive forms)
- Explore disciplines in terms of the nature of explanations (i.e., the act of explaining a phenomenon is one of the core acts of reasoning in any field, but the criteria for satisfactory explanations vary)
- Consider teachers classroom expectations can be considered as a model which mirror strategies of reasoning that are often unique to a discipline (i.e., The Center on Student Learning will identify the cognitive processes involved in generating explanations in different scientific domains with different explanatory structures)

LEARNING TO TEACH

Primary Tasks - RFP

* Provide conceptual, theoretical, strategic, and practical guidance for improving programs and approaches to develop teachers' expertise

* Focus on how people learn to teach the sciences, arts, and humanities for elementary and secondary years

* Central topics:

  The content of teachers learning

  The development of expertise over the professional life span

  The implementation of new pedagogies and their effects on learning to teach (e.g. case methods, computers, videodisks, approaches to learning through practice, and teacher portfolio development and analysis)

  The examination of how nontraditional contexts for learning to teach work and how they affect teachers learning

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Center on Learning to Teach

(Source: Proposal, Michigan State University June, 1990)

Mission

Provide leadership through research findings and through the way we frame our questions (i.e. recognition that directions in this emerging field and defining this new territory is one of the most important contributions the new Center can make).

Provide leadership through establishing connections between learning to teach and 4 fields of research and teaching that have been ignored:

Learning Theory
Relationship Between Schooling and Society
Nature of Subject Matter
Teaching Practice

Establish the territory of learning to teach through situating work in this area within 4 framing elements:

The context of public expectations that teachers learn to teach in more powerful and demanding ways

The context of shifting understandings of learning as receiving new knowledge, to learning as meanings imposed on new knowledge by individuals and learning situations (i.e. defining learning as a function of both the meanings imposed on new knowledge by the teacher-learner and the different interpretations of the learning situation by different individual's)

The context of multiple models of the teachers task (i.e. the need to consider pedagogies associated with particularities of different subject matter and particularities of students in classrooms across 16,000 school districts)

The context of disparate lines of work (i.e., work that examines teaching practice with the objective of deriving general principles of good practice, and, work that examines teaching practice with the objective of emphasing the highly situation-specific nature of teaching practice

Components of Developing Theory of Teacher as Learner

a. Multiple knowledge bases contribute to a theory of learning to teach:

Socialization processes
The tacit/active role of prior beliefs
The difficulty of changing firmly held beliefs
The difficulty of creating connections between subject matter and pedagogical subject matter knowledge

b. Multiple contexts for framing theory and practice questions contribute to developing a theory of learning to teach:

The context of public expectations
The context of shifting understandings of learners
The context of multiple models of the teachers' task
The context of disparate lines of work

Activities Proposed in Developing a Theory of Teacher as Learner

a. Developing multiple ways of tapping

+ prospective teachers' and classroom teachers' conceptions and beliefs
+ analyses of the nature of the conceptions and beliefs -- or models of teaching --

b. Considering opportunities for undergraduates to develop connected knowledge of subjects they have taken and are called upon to teach

+ analysis of situated knowledge and interpreting opportunities in liberal arts and science courses

c. Evaluation of programs specifically designed to prepare teachers to teach children culturally different from themselves

d. Studies focusing on "pedagogical reasoning" (i.e., how prospective teachers may have developed a frame that includes serious consideration of the content, the learners, how students learn, and the context)

e. Evaluation of case-based teaching in teacher education (i.e. expect 30 Colleges of Education could be doing this)

Consideration of:

How do other professions use case-based teaching?

What do teachers learn from cases?

What are the key features of case teaching?

What features of cases are most important?

f. Additional activities geared toward development of Theory of Teacher as Learner - include: cross-cultural analysis of mentoring groups; beginning teacher programs; learning to create a vision on one's own

Basis of Activities proposed in developing a Theory of Teacher as Learner

a. Building on available work that stresses the active role of socialization processes

Lortie, 1975	The profession of teaching socializes new members from childhood
Kennedy, 1990	The processes of socialization identified by Lortie can be glossed as "apprenticeship of observation" -- i.e., prospective teachers have spent over 3000 days as children and young adults observing teachers
McDiarmid, 1990	The outcomes of studies of proceses of socialization and apprenticeship of observation, suggest that we hold limited views of teachers' role; limited views of U.S. diversity; and deeply entrenched sets of belief about subject matter and how to teach it

b. Building on available work that stresses "resilience of beliefs"

Anderson, 1984	Schemata theories
Posner et. al., 1982	Conceptual change theories
Nisbett & Ross, 1980	Human judgment theories (i.e., "Human inference: Strategies and Shortcomings of human judgement")

c. Building on available work that stresses unique features of teaching practices

Brown et al 1989 Porter, 1989	Intellectual management of classroom events (e.g. goals for students are often exposure to subject rather than understanding)
Clark & Peterson, 1986 Doyle, 1977, 1983 Jackson, 1968, 1986 Lambert, 1985	Logistical management of classrooms (e.g. goals for teachers can be expanded beyond management skills)
Dewey, 1904/1965 Evertson, 1990 Feiman-Nemser & Buchman, 1985	Student teaching may be miseducative rather than educative (i.e., evidence for its benefits are lacking)

d. Building on available work on creating connections between subject matter knowledge and pedagogical subject knowledge

1.	Content - situated learning	
	Hirsch, 1987 Prawat, 1989	Consideration of connections among ideas within a subject
2.	Learner diversity	
	Jackson, 1986	Bridging cultural distance between the teacher and the student.
3.	Pedagogical subject matter knowledge	
	Shulman, 1986, 1987	Developing ability to represent concepts depends upon being able to: judge both how well the concept in question is portrayed and how meaningful it is to the particular student in the class, and Drawing upon analogies, metaphors, models and/or other devices to represent the new idea

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POSTSECONDARY LEARNING, TEACHING, AND ASSESSMENT

Primary Tasks - RFP

Any attempt to improve the system of postsecondary education requires exploration of distinct areas of inquiry:

student characteristics
instructional characteristics, practices and policies
educational objectives
specific content of majors
indicators and methods of assessing

National R&D Center on Postsecondary Learning, Teaching and Assessment

(Source: Proposal, Penn State University June 13, 1990)

Surveys and analysis to address RFP

a. Longitudinal study of 500 students (4 student learning outcomes to be studied across institutional types:

Content learning
Cognitive skills
Learning-related attitudes and values
Persistence and degree completion

b. Identification of outcomes (College learning is dependent upon 4 sets of causally antecedent variables:

Student background
Coursework and curricular patterns
Classroom experiences
Out-of-class experiences

c. A "Learning within the major" project will build on completed OERI studies:
OERI studies have led to development of indicators of learning within five scientific and technical fields: computer science, mechanical engineering, undergraduate biology, physics and chemistry.

The indicators are based upon content specialists analysis of the "signs and traces" of learning in each field. These "signs and traces" reflect among other things the current knowledge paradigms and curricula in these fields.

The next task is to develop measures to operationalize the indicators of learning so they can be included in the dependent measures of content learning to be used in the Center's longitudinal study.

d. A "Portrait of New Faculty" will be based upon a 3 year study of all new faculty hired in Fall, 1991 and Fall, 1992 in 4 institutions

TEACHERS PERFORMANCE EVALUATION AND EDUCATIONAL ACCOUNTABLILITY

Primary Tasks - RFP

- o provide information on state mandated teacher assessment systems
- o address needs for information about evaluation
- o catalog information about existing strategies and systems for evaluating teachers
- o play a role in assessing the implementation and impact of personnel and institutional evaluations

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R&D Center on Teacher Performance Evaluation and Ed Accountability

(Source: Proposal, The Evaluation Center, Western Michigan University)

Surveys and analysis to address RFP tasks

a. Development of a database of practice in the evaluation of educators and schools
b. Development of improved teacher evaluation models
c. Development of models for school evaluation
d. Development of models for administrator evaluation systems
e. Development of source book for evaluation training
f. Development of models for evaluating personnel who work with special populations

EDUCATION POLICIES AND STUDENT LEARNING

Primary Tasks - RFP

o Survey and analyze the topics of

Restructuring policies
Accountability policies
Deregulation policies

Center on Education Policies and Student Learning

(Source: Proposal, Center for Policy Research in Education - Rutgers, Michigan St., Stanford, U of Wisconsin-Madison, Harvard

Surveys and analysis to address RFP

a. Longitudinal study of how the achievement of at-risk high school students are influenced by state and local curriculum controls, school-based curriculum design, and approaches that combine centralized and decentralized curriculum decision-making (i.e., Center will study 12 high schools in two states and examine trends in course taking, trends in student achievement, and teacher attitudes related to student achievement and effective teaching)

b. Sampling of school incentive programs in Florida, Indiana, Pennsylvania, South Carolina, Texas and Washington (i.e., incentives to a whole school to build collegiality; to search for effective teacher techniques; to build identification between the individual and the larger system; to affect outcomes efficacy and/or personal efficacy -- e.g. outcome efficacy = a generalized belief that students can learn; personal efficacy = a belief that the individual teacher can teach the students in his/her charge)

c. Longitudinal study of a "core data base" of six states' policies: California, Florida, Georgia, Minnesota, South Carolina, Connecticut (last two to replace Arizona and Pennsylvania, which were included in the core in 1985-90)

d. Studies of how states respond to diversity through various differential treatment practices, including regulatory flexibility, outcome-based accreditation, and/or targeted technical assistance

ADULT LITERACY

Primary Tasks -- RFP

Develop, strengthen and expand adult literacy knowledge; adult literacy skills training and instructional programs, and the organization and delivery of services

Improve the accessibility of information in these areas

Provide technical assistance to Federal, State, and local agencies and businesses, labor, volunteer groups, and support programs and services involved in skills training and instruction

Develop and validate simple, adaptable performance-assessment instruments

Development mechanisms for training instructors to administer and interpret instruments

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National Center for Adult Literacy (NCAL) (Source: Proposal, University of Pennsylvania, June 1990)

Building a Vision

A. Deliverables during the first year:

Technical report on conceptual framework

Technical report on conceptual approaches to family literacy

Technical report on conceptual models for practitioner research staff

Technical reports based on secondary analysis of work of other agencies and organizations - e.g., 1985 Young Adult Literacy surveys (Kirsch & Jungreblut, 1986); 1989-90 Department of Labor Workplace Literacy Survey; the recent Canadian Assessment of Adult Literacy

Bring together the work of researchers located in different parts of the country and involving, in most cases, different populations of learners [See primary affiliates list, below]

B. Build a comparative interpretative framework for the study of adult literacy (i.e. a comparative framework which focuses on concepts of adults' self perceived and self described life transitions and stages of participation)

C. Build a conceptual framework for the study of adult literacy programs (i.e.,reconceptualizing participation to encompass range/stages from no participation in programs to completion of programs and achievement of goals)

The theoretical directions and methodological directions assumed in this vision involve:

- o Frame participation research issues within the personal and cultural systems of values, meanings, and motivations of participants and prospective participants (Note: Partners in the design of the conceptual framework include the State of California University System's Linguistic Minority Research Project)

- o Frame adult education studies to encompass the growing body of research which has documented adults' collaborative accomplishment of literacy activities with friends, family members, neighbors, or co-workers

- o Frame family literacy studies with premises that focus on the family as a source with information on literacy learning (e.g. The proposed research program in literacy and self-identity of Latino parents is based upon a cognitive anthropological perspective of literacy development. It draws upon schema and cognitive script theory from cognitive psychology and comparative studies of cognition in everyday settings)

- o Frame adult literacy studies with focus on the acquisition of literacy skills in relation to its' contexts and uses (i.e. This conceptual view presupposes that a family is a context for learning and that literacy assistance programs should be based on the social fabric of functions and use in the family unit)

Explanation for adopting a comparative sociocultural/social cognitive/anthropological framework

School-based frameworks focus on the social and contextual characteristics of the family unit as potential obstacles to overcome in order for learning to occur

Models based on the cognitive anthropological framework provide understandings of (a) the family as a source and user of knowledge; (b) the impact of the family as a system for learning; and, (c) how these understandings may allow us to sustain interest and participation

School-based models provide measurement terms (e.g. test score gains) over short and long term. In contrast to test score gains, the Center will study learning literacy demands based upon analysis of participants navigation of bureaucratic processes within medical and service delivery sites and, analysis of the literacy learning opportunities in civic participation activities (i.e. literacy learning demands associated with civic entitlements, including taking advantage of the right to vote)

Center's activities includes studies of participation in currently operational literacy coalitions in:

Small communities
Literacy programs affiliated with local community colleges
University Student Literacy Corps; Numerary Crops
Business coalitions
Labor groups
Mayors' initiative groups
African-American community efforts
Grass roots civic activities

Primary Affiliates List

CAL	(Center for Applied Linguistics)
CUNY	(City University of New York), Lehman College, ILS (Institute of Library Studies); ILS is the largest University-based literacy provision service in the U.S.
ETS	(Educational Testing Service)

Indiana University	Center for Research on Workplace Literacy
John Hopkins University	Center for Research on Effective Schooling for Disadvantaged Students
National Center for Family Literacy	Intergenerational transmission of literacy -- 78 programs nationwide; staff training in 23 states
NWREL	(Northwest Regional Education Lab) – Literacy and Language program works with employees and providers to design job-skill specific training
Pelavin Associates DC	Policy analysis and program evaluation
UC Berkeley	Center for Research on Writing and Literacy
UC Berkeley	National Center for Research on Vocational Education
UC Santa Barbara	Linguistics Minority Research Project
University of Delaware	Computer Technologies in Education
University of Pittsburgh	Learning Research and Development Center

EDUCATIONAL QUALITY OF THE WORKFORCE

Primary Tasks -- RFP

Survey the Topics of

Minimum education competencies for entry level jobs in the 21st century
Significant changes in the workplace
Extent of continuing education and training of the advanced knowledge workforce (i.e. what do they study and why)

National Education R&D Center on the Educational Quality of the Workforce

(Source: Proposal, The Warton School, U of Penn; The NY State School of Industrial & Labor Relations; The Institute for Research on Higher Education, U of Pennsylvania)

Surveys and analysis to address RFP tasks

a. To discover and communicate the educational requirements for work related skills (i.e. to determine the physical, verbal, mathematics and interpersonal skills required by workers in order to perform in highly technical occupations) the Center will conduct a combination of ethnographic observations; commissioned background papers, and reanalysis of data sets that include standardized job evaluations for more than 120,000 employees

b. To study workforce lifecycles the Center will conduct large scale surveys of firms

c. To provide information that indexes (or maps) the types of employee skills needed to those provided by education and training suppliers the Center will identify 2 and 4 year colleges and universities, firms, vendors, and public training agencies meeting the demand for adult and work-related education

ORGANIZATION AND RESTRUCTURING OF SCHOOLS

Primary Tasks -- RFP

Provide descriptions and classification of restructuring experiments at the school, district, and/or State level and identify what are their significant characteristics

Address the following:

> What effect, if any, have restructuring experiments had on school organizational conditions (e.g. class size, student grouping, use of time)
>
> What differences do new forms of collaboration with parents and service providers make in the operation of schools and students performance

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Center on Organization and Restructuring of Schools

(Source: Proposal U of Wisconsin-Madison June 15, 1990)

Research Agenda

a. Complete a national survey based on aprior social context categories

"We conceptualize restructuring as a multidimensional construct reflecting 4 dominant themes in recent reports (e.g., Council Chief State School Officers, 1989; Elmore & Associates, 1990; David, Cohen, Honetschalager, & Traiman, 1990; David, Purkey & White, 1989; Lewis, 1989; O'Neil, 1990; Quality Education for Minorities Project, 1990).

b. Analysis of restructuring survey will be according to the emphasis given to:

CHANGING STUDENT EXPERIENCE	(e.g. grouping, reward, support structures outside classrooms)
PROFESSIONAL LIVES OF TEACHERS	(e.g. relationships with students, colleagues, administrators, parents)
SCHOOL GOVERNANCE, MANAGEMENT AND LEADERSHIP	(e.g. new systems of governing schools; new constitutiencies for making decisions)
COORDINATION OF COMMUNITY RESOURCES	(e.g., effort to integrate health and welfare services for children and families; coordinating resources in the community)

c. A synthesis paper on "Conditions for Productive Discourse in Small Groups" will build on perspectives represented in works which stress the importance of looking beyond the boundaries of the school site to consider social organization of the community at large

Barr & Dreeben (1983)	How schools work (U of Chicago Press)
Bossert, S.T. (1979)	Tasks and social relationships in classrooms (Cambridge)

Bruner, J. (1971)	The relevance of education (Norton)
Langer, J. & Applebee, A. (1987)	How writing shapes thinking (Nat'l Council of Teachers of English)
Liben, L.S. (1987)	Development and Learning (Erlbaum)
Lortie, D.C. (1975)	Schoolteacher (U of Chicago Press)
McNeil, L. (1986)	Contradictions of control (Roulledge, Kegan Paul)
Michaels, S. & Cazden, C. (1986)	Teacher/child collaboration as oral preparation for literacy (in Schieffelin, B.B.)
Ogbu, J.U. (1974)	The next generation: An ethnography of education in an urban neighborhood (Academic)
Perret-Clermont, A.N. (1980)	Social interaction and cognitive development in children (Academic)
Resnick, L. (1987)	Learning in school and out (in Liben, L.S.)
Schein, E.N. (1985)	Organizational culture and leadership
Schieffelin, B.B. (1986)	The acquisition of Literacy (Ablex)
Stodolsky, S.S. (1988)	The subject matters: Classroom activity in math and social studies (U of Chicago Press)
Waller, W. (1932)	The sociology of teaching (Russell & Russell)

Table of Contents:

Synthesis of small group research
Issues of interaction in heterogeneous groups
The application of organization theory to the classroom
Organizational support for teachers struggling with these issues

Rationale

Many questions remain regarding cooperative learning efforts as a way to implement small-group work

Many questions remain because cooperative learning research has not explained how to develop sustained conversation in groups, how to minimize status inequities among students, and what kinds of organizational supports beyond the classroom do students and teachers need to generate productive discourse in small groups.

d. This synthesis will suggest guidelines that can be tested through new empirical evidence.

MATHEMATICS TEACHING AND LEARNING

Primary Tasks -- RFP

Conduct research on improving learning, teaching and assessment of mathematics

Conduct research on how cultural, linguistic, and gender differences support or obstruct mathematics learning

Conduct research to assess how the impact of teachers knowledge and beliefs on instructional content

Conduct research to assess how to make assessments sensitive to contexts of problem-solving situations and sensitive to students cultural and linguistic diversities

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SCIENCE TEACHING AND LEARNING

Primary Tasks -- RFP

Conduct research on improving learning, teaching and assessment of science.

Conduct research on how cultural, linguistic, and gender differences support or obstruct science learning.

Conduct research to assess how the impact of teachers knowledge and beliefs on instructional content.

Conduct research to assess how to make assessments sensitive to contexts of problem-solving situations and sensitive to students cultural and linguistic diversities.

Center on Science Teaching and Learning
(Source: Proposal, Ohio State University June 1990)

Framework for Center Activities:

4 Science Ed. Reform Reports

Based on the directions suggested in these reports, the Center Mission is to:

Focus on the external factors perceived as critical for understanding the social context of science instruction. (i.e., Little work in science education has explored the mechanisms through which societal factors may have an effect on teaching, learning, and assessment.)

External Factors defined as understanding the social context of science, including:
a. Conflict in perspectives on cognition and practice in science classroom

b. Distancing of classroom science learning and experiences from students' daily lives

c. Artificial separations including: grades rather than content domains; content as formal vs. informal presentations high school teachers vs. university faculty rather than colleagues

Center for Mathematics Teaching and Learning
(Source: Proposal, U of Wisconsin-Madison, June 15, 1990)

Framework for Center Activities:

4 Mathematics Ed Reform Reports

Based on the directions suggested in these reports, the Center Mission is to:

Focus on studies of mathematics content domains to provide examples of how basic cognitive research and research on instruction can be integrated. (i.e. Studies will identify the informal, contextual notions primary grade students bring to problems in whole numbers; middle school grade students bring to quantities -- common fractions, decimal fractions, ratios --, and high school students bring to algebra.)

Contextual Notions explained as:

a. Studies grounded in basic research on children' thinking (Lave 1988)

b. Studies of classroom-instruction-work that involves students as groups working on establishing connections to other disciplines

c. Developing a theoretical framework to describe classrooms, including a component on teachers' conceptions and beliefs, and students group work with a focus on communication.

Social Context References Used by the 2 Centers

Brown, Collins & Duguid (1989)
Situated cognition and the culture of learning

Lave, J. (1988)
Cognition in practice: Mind, mathematics and culture in everyday life

Rogoff, B. & Lave, J. (Eds.) (1984)
Everyday cognition: Its development in social context

EDUCATION FINANCE AND PRODUCTIVITY

Primary Tasks -- RFP

Survey and analyze the topics of

- Financial inputs
- Resource allocations
- Feasibility of developing indicators to track tendencies, variations, and trends in school finance
- Cross state comparisons (e.g. proportions of school budgets borne by different socioeconomic groups)
- College costs
- Financial aid

Anticipated benefits

A through cost-benefit analysis of education at all levels and from different perspectives i.e. those of students, schools, society

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Education Finance and Productivity Center

(Source: Proposal Center for Research on School Finance, U of Southern California)

a. Focus on what dollars buy and how that is connected to program quality, organization and school learning.

b. Focus on reorienting and, in part, redesigning the study of education finance into a focus on productivity -- how finance is connected to programmatic, management, and organization variables (e.g. to move the next generation of K12 and postsecondary finance research away from addressing school finance as separate topics; to move away from focusing so heavily on tax bases and revenue inputs as units of analysis)

c. Conducting surveys and analysis to accomplish the RFP primary tasks.

LITERATURE TEACHING AND LEARNING

Primary Tasks -- RFP

Concentrate on how the effective teaching and learning of literature can improve all students' critical thinking skills

Study the role of literature in terms of tradition, culture, values and, in terms of fostering learning and involvement in other subject and skill areas.

Address national findings which indicate that students cannot read and comprehend a variety of texts, including literary passages, and that students cannot apply their literary learning to experience outside the classroom.

Center for the Learning and Teaching of Literature

(Source: Proposal, SUNY Albany June, 1990)

Mission

Inquiry will focus on sociocognitive views of Learning, Instruction, Assessment

Justification

Center work will be based on a sociocognitive view of learning (Vygotsky, 1962, 1978; Rogoff, 1990; Scribner & Cole, 1980; Brown, 1973; Bruner, 1986; Gumperz, 1982)

Learning is seen as being socially based, and cognition (in particular ways of thinking) as growing out of those socially-based experiences

Social settings are where children learn how different forms of knowledge are used and communicated -- what counts as knowing and what knowledge "looks like;" what values are respected and what habits are to be cultivated; as well as how to manipulate the tools of language to serve the functions and reach the ends they see modeled around them

Ways of thinking appropriate to a particular culture are learned, while others -- those that are unproductive for successful knowing and communicating in that culture -- are not practiced and learned. (e.g. Today's literature classrooms can generally be discribed as:

- Classrooms where instruction focuses on the received interpretation of the content (in contrast to sociocultual premises which suggest that pictures of classrooms should be instruction focused on the readers interpretations as good reading)
- Classroom where students are taught content in isolation from processes and abilities to formulate extended and well-defined interpretations
- Classrooms where students have developed a response to literature scaffold -- an ordered ladder on which to "key school words" to predictable school-type questions

Sociocognitive Views of Teaching, Learning, and Assessment Some examples from projects

a. Identification of strategies of literary understanding 7th and 11th graders engage in as they make sense out of text in school and out of school literacy contexts (i.e. describe the act of reading from the reader's vantage point)
<theoretical orientation: a constructivist view (Anderson, Spiro, & Montague, 1977; Fillmore, 1981; Goodman, 1970)>

b. Identification of principles that underlie facilitative instructional support (i.e. identifying the structure of supportive interactions and instructional collaboration with 4 middle school and 4 high school teachers)
<theoretical orientation: thinking as a direct reflection of social processes in which the child has participated (Vygotsky, 1962; 1978)>

c. Identification of the roles of classroom literature activities and tasks across subject/content areas 9th graders are required to take
<theoretical orientation: reading as an event strongly influenced by its social context, including the requirement that readers construct meaning out of a transaction between the reader and the text (Bloome & Green, 1984)>

d. Explicate how narratives that result from teacher inquiry (Teacher research) can add to the construction of new knowledge of educational life
<theoretical orientation: building a teacher research epistemology based upon the philosophical content of teacher research, and the format of "Thick description" (Geertz, 1973; Bissex & Bullock, 19870)>

e. Identifying the literary activities experienced by children in public and private preprimary schools
<theoretical orientations: development of notions of literacy in social contexts (Cochran-Smith, 1983)>

f. Identifying assumptions, practices, and social relations implicated in those texts we call literacy through enactment of data collection and analysis methods specifically geared toward these research tasks in the field of sociolinguistics and ethnographic analysis
<theoretical orientation: focus on the ways in which social class and ethnicity go together with distinctive uses of literacy (Collins, 1989); test the assumptions that literacy and literacy practices are universally testable and rankable (Cook-Gumperz, 1986); focus on the text used, the purposes, and characteristics of participants (Heath, 1983)>

g. Development of multicultural diagnostic tool for High Schools (i.e. work in multi-cultural schools to discover the specific ways in which ideologies, values and beliefs about cultural diversity and interethnic relations can influence schools' organizational systems)
<theoretical orientation: the nature of an organizational system will be an important influence on the individual attitudes and behavior of members of that system (Schein, 1990); ideological positions regarding intergroup relations and their incorporation into the structure and function of social institutions are at the very root of how ethnic differences are handled (Glazer, 1983; Schofield, 1986); techniques of organizational culture assessment are congruent with the research goal of discovering specific ways in which ideologies, values and beliefs about cultural diversity and interethnic relations can influence the teaching of literature in various schools (Schein, 1990)>

h. Pilot-test a variety of student-portfolio alternatives in collaborative work with New York and Connecticut State Departments of Education <Alternatives are described in terms of 12 identified issues and options>

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